

Claims

[c1] 1.A real time stamp synchronization system for an automotive vehicle comprising:
a vehicle clock storing a current time;
a time receiver receiving a real time signal from a time center; and
a collision system controller electrically coupled to said vehicle clock and said time receiver, said collision controller synchronizing said current time with said real time signal.

[c2] 2.A system as in claim 1 wherein said collision system controller synchronizes said real time signal with a time stored on a clocking system other than said vehicle clock.

[c3] 3.A system as in claim 1 wherein said collision system controller stores collision event related information synchronized to said real time signal.

[c4] 4.A system as in claim 1 further comprising an object detection system generating an object detection signal, said collision system controller electrically coupled to said object detection signal and storing said object detection signal in synchronization with said real time signal.

[c5] 5.A system as in claim 1 further comprising a vehicle sensor complex generating a vehicle sensor complex signal, said collision system controller electrically coupled to said vehicle sensor complex and storing said vehicle sensor complex signal in synchronization with said real time signal.

[c6] 6.A system as in claim 1 further comprising restraints control module generating a restraints control signal, said collision system controller electrically coupled to said restraints control module and storing said restraints control signal in synchronization with said real time signal.

[c7] 7.A system as in claim 1 further comprising a vehicle dynamic controller generating a vehicle dynamic signal said collision system controller electrically coupled to said vehicle dynamic controller and storing said vehicle dynamic signal in synchronization with said real time signal.

[c8] 8.A system as in claim 1 further comprising an occupant assessment system generating an occupant assessment signal, said collision system controller electrically coupled to said occupant assessment system and storing said occupant assessment signal in synchronization with said real time signal.

[c9] 9.A system as in claim 1 further comprising a telematics system electrically coupled to said collision system controller, said telematics system generating and transmitting a vehicle and occupant assessment signal in synchronization with said real time signal.

[c10] 10.A system as in claim 1 further comprising a personal electronic system electrically coupled to said collision system controller, said personal electronic system synchronizing a personal electronic system clock with said real time signal.

[c11] 11.A system as in claim 10 wherein said personal electronic system is electrically coupled to said collision system controller by a communication transport or port.

[c12] 12.A system as in claim 1 wherein said collision system controller is in wireless communication with one or more vehicle related systems.

[c13] 13.A collision evaluation system for reconstructing a vehicle collision event comprising:
a real time stamp synchronization system, said real time stamp synchronization system receiving a real time signal from a time center and synchronizing a vehicle clock to said real time signal, said real time stamp synchronization system generating a vehicle collision event signal corresponding to the collision event in real time; and
a collision evaluation center in communication with said vehicle, said collision evaluation center storing said vehicle collision event signal, said collision evaluation center reconstructing said collision event in response to said vehicle collision event signal.

[c14] 14.A system as in claim 13 wherein said time center includes a satellite.

[c15] 15.A system as in claim 13 wherein said time center includes a weather station.

[c16] 16.A system as in claim 13 wherein said time center includes a traffic control station.

[c17] 17.A method of real time stamping synchronization of automotive vehicle related systems for an automotive vehicle comprising:
storing a current time on a vehicle clock;
receiving a real time signal; and
synchronizing said current time with said real time signal.

[c18] 18.A method as in claim 17 further comprising synchronizing said real time signal with time stored on a clocking system other than said vehicle clock.

[c19] 19.A method as in claim 18 further comprising storing collision event related information synchronized to said real time signal.

[c20] 20.A method of reconstructing a collision event comprising:
generating and transmitting a real time signal;
receiving said real time signal and synchronizing a vehicle clock to said real time signal;
generating a vehicle collision event signal corresponding to the collision event in real time;
storing said vehicle collision event signal; and
reconstructing the collision event in response to said vehicle collision event signal.

[c21] 21.A method as in claim 20 further comprising modifying a vehicle related system in response to said vehicle collision event signal.